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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,205

03/23/2006

Peter Rippl

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EXAMINER

EVANS, GEOFFREY S

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

03/19/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,205	Applicant(s) RIPPL ET AL.	
	Examiner Geoffrey S. Evans	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-11 and 14-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 is rejected because it depends upon cancelled claim 6. For the remainder of this office action claim 7 is treated as if it depends upon claim 1.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-3,7-11,21,22, and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bannister in U.S. Patent No. 4,626,999 in view of Hata et al. in Japan Patent No. 6-170,565. Bannister discloses a remote laser head

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(element 66), a multi-axial manipulator hand (element 23) for controlled working of a material with laser light and a control means (76) for controlling the apparatus . Hata et al. teaches a closed welding path(see figure 1). It would have been obvious to adapt Bannister in view of Hata et al. to adjust at least one of the axes of the multi-axial manipulator hand to send the beam along a closed loop path along the workpiece surface for welding. Regarding the language “wherein one or more of a laser output and a velocity of welding and cutting is adjusted as a function of irradiation angles B of the laser beam” is met since any change in the angle of the beam will change the velocity of the welding since velocity has a vector component that will change and is not a scalar (like speed). Regarding claim 3, as a matter of common sense one would not move the axes that are not required to laser weld the workpiece to save energy. Regarding claims 11 and 24, it would be within the level of ordinary skill in the art to experimentally determine the proper focal length of the laser beam exiting the laser head. Clearly by using a long focal length the laser beam is focused over a larger range as compared to a short focal length.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bannister in view of Hata et al. as applied to claim 1 above, and further in view of Ishida et al. in Japan Patent No. 63-108,979, published May 1988. Ishida et al. teaches laser welding along a path of the exterior of a shell. It would have been obvious to adapt Bannister in view of Hata et al. and Ishida et al. to provide this to weld a fuel tank together.

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6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bannister in view of Hata et al. as applied to claim 1 above, and further in view of Faitel in U.S. Patent Application Publication No. 2002/0170889. Faitel teaches adjusting a lens (element 42) so that laser welding can occur at various angles by suitable adjustment by a mirror. It would have been obvious to adapt Bannister in view of Hata et al. and Faitel to provide this to accurately laser weld at various angles.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bannister in view of Hata et al. as applied to claim 1 above, and further in view of Takahashi in Japan Patent No. 10-58,179. Takahashi teaches using a zoom lens to adjust the focus of a laser beam. It would have been obvious to adapt Bannister in view of Hata et al. and Takahashi to provide this as a functionally equivalent method of adjusting the focus of the laser beam.

8. Applicant's arguments filed 5 December 2009 have been fully considered but they are not persuasive. Applicant's argument that Bannister does not have an optical fiber has no merit in claims that do not recite an optical fiber.

9. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 15-19 are allowed.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maruyama et al. in U.S. Patent No. 6,153,853 has a mirror scanner in a head for laser welding. Japan Patent No. 9-192,869 discloses

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scanning the laser beam (see figures 1 and 2) for welding. Japan Patent No. 2000-158,174 discloses in figures 1 and 3 a robot pivotally holding a processing head (element 4) that in turn supports a torch (element 7) that receives light from an optical fiber.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S. Evans whose telephone number is (571)-272-1174. The examiner can normally be reached on Mon-Fri 7:30AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571)-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey S Evans/

Primary Examiner, Art Unit 3742